

Claims

1. Method for producing screened coatings on flexible sheeting such as wovens, knits and non-wovens, mainly for garment fabrication, including hot-melt adhesives, comprising the steps of screen imprinting a paste forming a barrier-layer, subsequent powdering with a hot-melt adhesive powder and removing the excess powder not adhering to the paste imprint, wherein said paste is filled by a knife into either the recesses in an engraved roll or by a knife into the perforations in a round screening stencil, in the latter case with said knife at an obtuse angle in contact with the outer side of said stencil presented with paste, and subsequently part of this sole paste filling being applied localized to said applied sheeting and separately in time from said filling and without penetrating said sheeting when compressed in using a backing roll, followed by powdering with said hot-melt adhesive powder.

2. The method as set forth in claim 1 wherein said paste is filled into the recesses of an unheated engraved roll and subsequently transferred by an unheated rubberized backing roll to said sheeting.

3. The method as set forth in claim 1 wherein said paste is filled into the recesses of a cooled engraved roll and subsequently transferred by a heated steel-surfaced backing roll to said sheeting.

4. The method as set forth in any of the claims 1-3 wherein a backing roll presses said coating substrate against said engraved roll.

5. The method as set forth in claim 1 wherein said paste is filled into the perforations of said screening stencil by an outer knife locating said outer smooth ground surface of said round screening stencil at an obtuse angle of

approx. 130 to 170° such that it roughly fills maximally the volume of said perforations (= cross-section multiplied by stencil wall thickness).

6. The method as set forth in claims 1 and 5 wherein paste is transferred to said sheeting by the contact pressure of an inner knife in said screening stencil with no further inner paste feed.
7. The method as set forth in any of the claims 1 to 6 wherein the viscosity of said paste is high, roughly in the range 15,000 to 25,000 cP.
8. The method as set forth in any of the claims 1 to 7 wherein said paste contains PVC, PVC plasticizer and cross-linked poly(meth)acrylates.
9. A device for implementing the method as set forth in any of the claims 1-8 comprising a paste impression device including an engraved roll for contacting a rubberized or non-rubberized backing roll, a knife contacting said engraved roll, means for supplying said paste, feeding said coating substrate into the nip between engraved roll and backing roll and forwarding said pasted substrate under a powderizer for applying said hot-melt adhesive powder, followed by an blower/suction device and a drying/sintering means.
10. A device for implementing the method as set forth in any of the claims 1-8 comprising a paste impression device including a round screening stencil ground smooth on the outside, an outer knife locating said screening stencil at an angle of approx. 130 to 170° and an external paste feeder, an inner knife with no inner paste feed and a backing roll contacting said screening stencil under the line of contact of said inner knife edge followed by an blower/suction device and a drying/sintering means.

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